

In the Claims

1(Currently Amended). A signal transmission amplifier circuit, comprising:

a transmission gate having an input coupled to an input signal;

a cross coupled latch coupled to an output of the transmission gate and having a signal output; and

a reference generating circuit coupled to the cross coupled latch through a second transmission gate, wherein the reference generating circuit includes a latch coupled to a Schmitt trigger.

2(Original). The circuit of claim 1, further including a strobe signal coupled to the transmission gate.

3(Original). The circuit of claim 2, wherein the strobe signal is coupled to the cross coupled latch.

4(Cancelled).

5(Cancelled).

6(Currently Amended). The circuit of claim 5 1 wherein the second transmission gate is between the output of the latch and the cross coupled latch.

7(Original). The circuit of claim 1, wherein the input signal is a single ended input.

8(Original). The circuit of claim 1, wherein the input of the transmission gate is coupled to a transmission line.

9(Currently Amended). A signal transmission amplifier circuit, comprising:

a transmission gate having an input;

a latch coupled to an output of the transmission gate having a reference input;

and

a second transmission gate coupled to the reference input; and

a reference generating circuit having an output coupled to the reference input through a second transmission gate, the reference generating circuit having a latch.

10(Original). The circuit of claim 9, wherein the latch is a cross coupled latch.

11(Original). The circuit of claim 9, wherein the transmission gate is coupled to a strobe signal and an inverted strobe signal.

12(Original). The circuit of claim 10, wherein the cross coupled latch latches on an input signal having a voltage that is less than a transistor threshold.

13(Original). The circuit of claim 12, wherein the cross coupled latch is coupled to a strobe signal.

14(Cancelled).

15(Currently Amehded). A signal transmission amplifier circuit, comprising:

a cross coupled latch having an input;

a reference voltage generating circuit coupled to the cross coupled latch,

wherein the reference generating circuit includes a latch; and

a transmission gate coupling to the reference generating circuit to the cross coupled latch; and

a second transmission gate between the reference voltage generating circuit and the cross coupled latch.

16(Original). The circuit of claim 15, wherein the cross coupled latch has a strobe signal input.

17(Original). The circuit of claim 15, further including a transmission gate coupled between the input of the cross coupled latch and an input signal.

18(Cancelled).

19(Cancelled).

20(Currently Amended). The circuit of claim 49 15, wherein an input signal is a single ended signal.